Dr. Harrison's Biography and Mission Statement

Joel and dog Zip flashing a "V" for Vaccinate

I am a retired epidemiologist who has worked in the areas of preventive medicine, infectious diseases, medical outcomes research, and evidence-based clinical practice guidelines. For some time I have been following the so-called "vaccine controversy." Outbreaks of totally unnecessary vaccine-preventable diseases have been occurring as a consequence of misinformation and disinformation from anti-vaccine advocates who don't understand science, don't apply critical thinking, display poor scholarship (e.g. relying on one blog post rather than reading the actual research, etc.); but when confronted fall back on paranoid conspiracy theories and ad hominem attacks. Mainly children, but adults as well, have suffered through various diseases; sometimes resulting in hospitalizations, long-term disabilities, and even death.

I have had a life-long interest in history and science. Since reading years ago a book by William H. McNeil, "Plagues and People," which made a compelling case that infectious diseases have played a major role in human history, I was hooked. Since then I have tried to read as many books and articles as possible on the history of infectious diseases in general and specific diseases such as polio, measles, influenza, smallpox, etc. My other main area of interest has been and continues to be research methodology, causal thinking, and how we know/form opinions, e.g. cognitive psychology, critical thinking, etc. In retirement I try to keep up with what is going on in the world of diseases, including being on the CDC, WHO, Swedish public health (I'm fluent in Swedish) and the Canadian public health listservs. The outbreak of Ebola in Africa is just the latest; but basically, besides compassion for the suffering of others, we in the United States are just a plane flight away from diseases, some previously eliminated in this country by vaccines, and others that, hopefully, vaccines will be developed for.

As a retiree and life-long proponent of public health and vaccines I decided to devote time combating the misinformation and disinformation of the anti-vaccinationist by showing the level of poor scholarship, irrational, unscientific, and sometimes even lacking common sense claims made by anti-vaccinationists. My approach is quite simple. I will use accurate direct quotes from their articles and show, using accurate direct quotes from other articles and documents, together with clear explanations of scientific method, etc. that literally they don't know what they are talking about. Each of my articles will contain detailed footnotes, including page numbers, and references with the URL/hyperlink to any papers available on the web.

Though I believe I am reasonably intelligent, well-educated, and well-read, I try to recognize at all times that I am a mere mortal and that the world is quite complex. As such, though unlikely, I could misquote or misunderstand something, miss some caveat written later in an article, or, even through extensive searches, miss relevant articles.

Any critique pointing out the aforementioned will be taken seriously and, if correct, will lead to my posting a correction online; but even if someone were to find such an error, it does not mean that everything else I have written is incorrect. This is one of the major flaws in the anti-vaccinationists' logic. Imagine if you will a criminal trial where the prosecutor presents DNA evidence, 12-point fingerprint matches, and 10 eye witnesses. The defense employs a quality private detective who finds that one of the witnesses was either near-sighted with glasses in the repair shop or mistook the dates; but despite all efforts could find no problems with any of the other witnesses or forensic evidence. Well, obviously, in summation the defense attorney will play up the one discredited witness; but would any jury ignore all the remaining compelling evidence? Well, that is exactly what many anti-vaccinationist would like.

While I accept my being human, I devote considerable time and effort to my articles, often reading articles and documents several times, using a split screen to double check the accuracy of my quotes, and running drafts by several people for review, editorial comments, and critiques. I believe that anyone carefully reading my articles, including checking the references, will find my arguments compelling and credible.

Some Additional Remarks

Numerous scientific studies and reviews have found no credible association between vaccines and/or their constituents and Autism Spectrum Disorders. There is basically no such thing as the "perfect" study. Each and every study can be found to have some problem(s) which is why science demands peer-review, why journals and conferences allow for/encourage critiques, and why replication(s) are essential.

Even randomized clinical trials have problems. To name one, the randomization process is intended to distribute "equally" any other variables, known and unknown, that could affect the outcome. The larger the trial, the better adhered to the methodology, the more likely this is; but it is never certain. Randomization only "guarantees" equal distribution in the long run, that is, replications. And there is seldom if ever perfect replications, each study is both different and the same. However, when numerous studies using varied methodologies, different researchers, different countries, different populations, and different measures, come to similar conclusions, the scientific consensus is sound. However, as opposed to non-scientist, scientist do not speak in absolutes, they use phrases such as "no evidence of harm was found." This doesn't mean there is evidence that they just missed; but that NO study is assumed to be perfect and, though highly unlikely, there is always a remote possibility that future research will lead to different conclusions. A possibility that becomes ever more remote as more and more studies find similar results. Even in this case, new research often just leads to slight modifications, not out and out rejection of a consensus based on numerous studies.

While adverse events can result from vaccines, most are mild, though a few can be severe; but compared with the risks posed by the natural diseases, the benefit to risk ratio is astronomical. And, despite claims by anti-vaccinationists, numerous credible scientific studies have found no association

between vaccines and/or their ingredients and Autism Spectrum Disorders! Any rational person should understand this. Just as a few people are injured by seat belts, no one in their right mind would exchange the literally thousands of deaths and many more injuries prevented by seat belts to prevent the few seat belt caused injuries. In my case, I have worn a seat belt religiously for over 40 years, long before it was mandatory and, thankfully, have never been in a situation where they were needed; but I continue to wear them. As opposed to years ago, we in the United States don't directly see the diseases that vaccines prevent; but they are just a plane flight away. it only takes one time and the risk is always there. Even herd immunity does not guarantee protection of the unvaccinated if directly exposed to someone who has been abroad.

As mentioned above, scientists seldom if ever make claims of absolute certainty, whereas many anti-vaccinationists assert a level of certainty that no scientist would make. There are a number of explanations for this, among them is "Confirmation Bias." "Confirmation bias is the tendency to search for or interpret information in a way that confirms one's beliefs or hypotheses. People display this bias when they gather or remember information selectively, or when they interpret it in a biased way. The effect is stronger for emotionally charged issues and for deeply entrenched beliefs. People also tend to interpret ambiguous evidence as supporting their existing position." (Wikipedia, "Confirmation Bias") (For additional information on Confirmation Bias and other fallacies of reasoning see: Carroll, 2013; Gilovich, 1991; Shermer, 1997, especially Chapter 3)

And "The Dunning-Kruger effect, named after David Dunning and Justin Kruger of Cornell University, occurs where people fail to adequately assess their level of competence — or specifically, their incompetence — at a task and thus consider themselves much more competent than everyone else. This lack of awareness is attributed to their lower level of competence robbing them of the ability to critically analyse their performance, leading to a significant overestimate of themselves. . . The inverse also applies: competent people tend to underestimate their ability compared to others." (RationalWiki, Dunning-Kruger effect)

Sincerely,

Joel A. Harrison, PhD, MPH

References:

RationalWiki. Dunning-Kruger effect. Available at: http://rationalwiki.org/wiki/Dunning-Kruger_effect

Carroll, Robert Todd (2013). The Critical Thinker's Dictionary: Biases, Fallacies, and Illusions and what you can do about them. Lulu. [available as e-book, information about at: http://www.skepdic.com/authorpage.html]

Gilovich, Thomas (1991). How We Know What Isn't So: The Fallibility of Human Reason in Everyday Life. New York: The Free Press.

Shermer, Michael (1997). Why People Believe Weird Things: Pseudo-Science, Superstition, and Bogus Notions of Our Time. New York: MJF Books.

Wikipedia. "Confirmation Bias." Available at: http://en.wikipedia.org/wiki/Confirmation_bias